Clastra Alpium Iuliarum:  
a Research Plan

Mario ZACCARIA  
Independent Researcher  
Rijeka, Croatia

Abstract. – After the golden age of the Roman Empire, from Augustus to Marcus Aurelius, known as the Pax Augusta, a time of insecurity starts, in which the Empire must be defended on all fronts. There are frequent barbarian raids on the territory of Illyricum and Italy, and defensive measures are being taken. One of these is Clastra Alpium Iuliarum, a system of defensive walls (barriers), forts and towers in the current Republic of Slovenia and the Republic of Croatia, designed as early as the time of the emperor Gallienus. It lasted until the emperor Theodosius 400 A.D. Clastra ought to be systematically researched with new technologies available (LiDAR, GIS and georadar), archaeological excavation should be performed, and Clastra should be presented to scientific and general audience and included in the List of UNESCO World Heritage.¹

Introduction: What are the defensive walls of the Julian Alps?

The term “clastra” refers to the series of forts on uneven ground, whose purpose is to ward off the enemy, as well as the entire defensive line². Clastra Alpium Iuliarum is a system of fortifications and defensive walls (barriers) built as protection of those valleys and passes situated between Slovenia and Croatia (to a lesser extent in Italy and Austria) along

¹ I thank my colleague Juraj Kusetić with whom for years I dream to announce and launch Clastra as a research project. I thank him for his valuable advice. Likewise, I thank Ivana Bahun for having patience with my typos, grammatical errors and nonsense in general.

² KUSETIĆ 2008, p. 38.
which flowed the most effective communication pathways. The danger began with the invasion of Italy in the event of breach of the Danube limes, as was the case in 169/170 AD during the Marcomanian wars, when for several months the attackers held siege of Aquileia and destroyed Opitergium (Oderzo)³.

_Clastra Alpium Iuliarum_ protected the _Aquileia-Emona-Carnuntum_ road (Figure 1.4), the fastest and safest way to travel in the province of Noricum and Pannonia, a route used for millennia as the last tract of the so-called “Amber Road.”

![Figure 1. Barrier model between Emona and Tarsatica (PEROVŠEK-PETRIČ 2008).](image)

The Danube limes and the aforementioned fortification system are not so different from a technically point of view, but they differ in function: the first one is the fortification line between the Roman Empire and _barbaricum_, and it was the actual state border, while the barriers are situated within the Roman territory, and they represented the defensive structures of mainly local and regional character. Apart from that, unlike the Danube limes, Clastra had no lateral communication paths, which enabled the movement

of legions in the event of danger from their position in the background, due to the developed ground that left little room for maneuver. The main purpose for the Romans was to close and control routes which were passable (paths, roads, fields), protecting sources of drinking water in order to weaken the opponents and discourage their attempts of looting Italy. A signaling system, similar to the one used during the Ottoman invasion, was used for sending notice of impending military threat across the entire district up to Aquileia (Figure 3).

The construction of defined tracts had to run slowly. First, it was necessary to identify sites with geo-strategic specifications and to ensure the cleaning of the ground by felling vast forest areas in order to gain an overview of the environment. Cut wood would be used for the construction of palisades and hiking trails on the walls. The rest of the wood was used for

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4 MALNAR 2007 pp. 205-206. As soon as the Turkish soldiers would cross the Bosnian border signal fires would be lit, and the news would spread to Aquileia within 4 hours, it has been calculated that the news could reach from Poetovia (Ptuj) to Aquileia within two hours (KUSETIC 2008, p. 44).
the fire which was necessary for heating and production of lime. In addition, vast quantities of wood were to be ready at any time for the ignition of signal fires, in case of the enemy detection. The construction was difficult due to the uneven terrain and, apart from the maintenance of major roads, it was necessary to enable minor roads which were used for the construction site and would eventually serve for the supply of manpower, weapons and food for the echelons in that area⁵.

It has been calculated that the walls in some places should be up to 4.5m high, so that the towers could be erected on three floors, the last one of which served as a guardhouse; it was covered due to the frequent rainfall, and with access to the passage of the parapet (breastwork). Beams used for walking were leaning against the projecting buttresses, equally distant from one another (3 m). Towers were constructed by using two buttresses (Figure 5) but these were not present at all sections of the limes since their positions depended on the flexibility of the terrain, becoming higher when they descended into the valley (Figure 6.7). Precipices, barriers by themselves, gorges and grottoes were integrated into the walls and connected to each other with filling of crushed stones of various sizes.

In some areas, such as Hrušica and Lanišče, the walls were leaning against the fort, or the fortified line fit into the walls as in Tarsatica. In the area of Jelenje, the fortress was located quite far from the walls, beneath today’s Grobnik hill-fort. Other points can be identified at Klana, where the medieval castle stands today, and perhaps south of the Iron Gate, the area

⁵ Kusetić 2008, p. 45.
of Šiblje, where Matejčić describes a rhombus-shapes area. The walls at Kalvarija, Sv. Katarina, Jelenje and Klana comprise of two poles of half-processed blocks with crushed stones rubble and mortar (the same goes for other parts of Claustra\(^6\)). Only in Prezid near Čabar the valley was cut with walls made in dry stone technique, which could indicate the speed of construction due to the upcoming danger. The walls that enclosed valleys had to be visible from far away in order to have a disincentive effect on barbarians.

![Figure 4. The important road Aquileia - Carnuntum across Pannonia and east Noricum, known as the amber road, with the positions of barriers (PEROVŠEK-PETRIČ 2008).](image)

**Historical context, sources and archaeological documentation**

The ancient sources are mainly indirect, and when they do mention *Claustra*, they only sketch it out, therefore it is necessary to cross-reference the chronological data from modern historiography with the information from the archaeological remains and selected sources by Jaroslav Šašel in his capital work *Claustra Alpium Iuliarum. I Fontes*.

The fortification of the Julian Alps already started during the Roman conquest\(^7\). After the last great rebellion of the Pannonian and Illyrian

\(^6\) KUSetić 2008.

\(^7\) Kusetic 2008, p. 41, Kandler claimed falsely that the limes existed from 48 B.C. against Iapodes who attacked the Po valley (Kandler 1870 pp 1-4).
peoples from 6–9 A.D. which was led by Baton and put down by the future emperor Tiberius, a long period known as *pax romana* began.

The border with Italy was determined on the river Raša where formerly had been the boundary between Liburni and Histri and thus Histria became part of Regio X. Illyria was divided into two provinces of Dalmatia and Pannonia, latter was divided into Upper and Lower by the emperor Trajan in 103 A.D., with centers in Carnuntum and Aquincum, along the Sava river. An arrangement that will not change over the next 300 years. In the north, the Regnum Noricum peacefully entered the composition of the Empire in 16 BC thanks to Tiberius and Drusus the Elder, which triggered the rapid development of the region with the construction of many cities: Emona, Celeia, Petovia, Salla, Scarbantia and Carnuntum, the latter as the seat of the provincial governor and the general headquarters of several emperors; under the emperor Claudius (41-54 AD) Noricum was raised to the rank of province. A limestone base found in the field and preserved at the City Museum in Trieste can be also dated under the Emperor Claudius. The base has an inscription that celebrates the building of the road Tergeste - Avestica - Ad Malum-Ad Titulos-Tarsatica, built by a decree of the governor of Pannonia Aulus Plaucius.

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7 LUTTWAK 2007, pp 31, 56, 72; WILKES 1998, p. 197.; 2.110.4 (...) parentis acerrimis et perissimis ductibus, pars petere Italianum decreverat in eam sibi Nauplii et Tergestis conterminos, pars in Macedoniam, se effuderat, pars suis sedibus praeidium esse destinaverat.


9 BLEČIĆ 2001 p. 68.

10 WILKES 2007, p. 199.

11 GERACI, MARCONE 2004, p. 162.

12 TREVISOL 1999 pp. 159-160
In 2001, a cippus from Bevke was found, signalling the border between Aquileia and Emona: of an uncertain date between 43 BC when Naupactus could have been part of Cisalpine Gaul, and after 33 BC with the establishment of the colony of Julia Emona, but not after the reign of Claudius. Thus, according to some scholars, the Regio X reached to Emona.

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Figure 6. The model of walls that grow in height by lowering the valley as opposed to those at the top of the hill (PEROVŠEK-PETRIČ 2008).

Figure 7. Floor plan by Ivan Vučić: the four towers at Jelenje (generous concession of R. Starac and the Maritime Archives and the Historical Museum of the Croatian Littoral in Rijeka).
After a relatively peaceful principate of Antoninus Pius (138-161 AD) a period of “double principate” of Marcus Aurelius and Lucius Verus followed, and raised a question of Parthians in the East, the result was victorious but became an indirect cause of hardships in the coming years. There were no more wars of conquest, but the need for constant defense of the imperial territory during the entire reign of two emperors. The first attempt of crossing through the Roman border was made by 6000 Obias and Lombardians who unexpectedly crossed the Danube river during the New Year 166/167 A.D. The attack was rejected by the Roman frontier troops, but the Romans did not have enough time to provide effective protection and to launch a punitive offensive, when a joint assault of Quadi and Marcomanni shifted to the area of both Pannonias. Marcommani-Sarmatian wars from 166 and 180 A.D. era led to an important turning point in the history of the Danube provinces. Apart from the epigraphic sources, we have information on diplomatic efforts before the war, the defeat of the Roman army, storages of numismatic material and destruction of legionary camps as well as towns. Marcomanni and their allies broke through the Danube limes in 170 AD, reaching Italy, besieging Aquileia and destroying Opitergium (Oderzo). Various military camps located in Pannonia (Quadrata, Ad Statuas, Vetus Salina, Matrix or Intercisa) were built in stone at the end of the war. The construction plan was not completed until the end of the reign of Marcus Aurelius, or the beginning of the reign of Commodus, when Rome gave up trying to conquer provinces of Marcomannia and Sarmatia.

While the war with the Parthians was still in progress, there was a conflict with Marcomanni and after five years in the East, Lucius Verus returned to Rome. Marcus Aurelius gave a speech in the Senate on the seriousness of the situation after which he ordered the priests who arrived from all over the empire to make sacrifices, cleared the city and for seven days celebrated banquets in honor of the gods (lectisternia) according to the Roman custom. On their return from the eastern front soldiers brought with them

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14 GERACI, MARCONE 2004, pp. 210-212.
16 In 169 AD, according to some historians.
18 GABLER 2002, p. 73.
the plague that struck the population from 165 to 189 AD: the measures were taken to prevent the spread of infection and the interment was legalized. Finally, both emperors went to the North dressed in military clothes (paludati) making a stop in Aquileia in spring of 168 AD. In *Historia Augusta* we learn that Lucius Verus had constantly been urging his colleague to return to Rome together, especially because they found out that the prefect of the Imperial Guard, Furies Victorinus, was killed along with most of the army. But Marcus Aurelius was determined to continue the campaign:

> Finally, having crossed the Alps, they went even further and put into effect all the necessary measures for the defense of Italy and Illyricum (Hist. Aug., Vita Marci, 14.5; translation. Cro. Mario Zaccaria).

Nothing is mentioned in Marcus’ life about the Marcomanni invasion which reached Verona, Oderzo destruction and siege of Aquileia. Only three short paragraphs reveal that the event was traumatic. For the first time, after two centuries of peace, the soil of Italy was defiled. The omission of the event must have been deliberate in order to avoid the Emperor’s bad publicity because he was celebrated in all his virtues.

Aquileia was besieged and Opitergium destroyed. But when? The possible time span goes between 167 and 171 AD. According to traditional opinion, the invasion of Italy took place after the breach of the Danube limes in 167 or a little later in 168 AD. The two emperors stayed in Aquileia in order to counterattack across the Julian Alps, and organized in the north eastern mountains between Aquileia and Emona defense system mentioned in Marcus’ life (Vita Marci). For the official name we can thank to the inscription from Thibilis, in Numidia, from which it follows that the senator *Q. Antonius Adventus Q.f. Quir. Postumis Aquilinus* became leg(atus) Aug(usti) at praetenturam Italiae et Alpium expeditione Germanica³², a position he took, according to the series of acts from his respective *cursus honorum*, between 168 and 169 AD. There is a theory of the later invasion from 170 AD proven by archaeological finding. The main arguments are that the sources mention only Marcus Aurelius, putting the event after the death of Lucius Verus in 169

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³⁰ ZACCARIA 2002, p. 75.
³¹ Lucian of Samosata, Cassius Dio and Ammianus Marcellinus.
³² AE 1893,88 = ILS 8977 ŠAŠEL 1971, p.22.
AD, which means that the emperor came to the Danube only in 170. Campaigns of generals Tiberius Claudius Pompeianus and Publius Helvius Pertinax probably date from the time when Tiberius became a son in law of Marcus Aurelius by marrying his daughter Lucilla, the widow of Lucius Verus. The defense organized by Marcus Aurelius, *Alpium praetentura Italia*, was not sufficient to prevent the penetration of Marcomanni and Quadi. Finally, W. G. Kerr proposes an option, contrary to Birley (about the date of the invasion of Italy in 170) that *praetentura* was not a useless preventive measure, but a response to the invasion of 167 AD. Therefore, the only unquestionable point remains the the forming of praetenture Italia et Alpium expeditione Germanica at the end of 168 and at the beginning of 169 A.D., the defense system from Forum Iulia (Cividale del Friuli) to the territory of Emona, from the background of Tergeste (Trieste) to Celeia (Celje). It stopped to exist as early as 171 A.D. at the end of the first phase of the Marcomanian wars.

It is possible that the legacy of a senator rank entrusted with *praetentura* could have disposed with two legions, II and III Italica, formed in 165 in case of potential revolts of the people in the north of the Danube, and legionary squads and cohorts placed on the limes. Although the archaeological traces can be identified from the 2nd century in some localities of great importance for securing "the necessary measures for the defense of Italy and Illyricum": a mainstay of the Legio II Italica is localized in Locica between Emona and Celeia, to guard the main road from the Danube to Aquileia. At the same tract fortification works were built at the site of Ad Atrans (Trojana), as proved by an inscription from the time of Marcus Aurelius and Lucius Verus. Dating from the same time are the walls that enclosed the valley of the river Gail in Rattendorf, a military camp on Hoischhügel on the road that linked Noric to Italy via the Camporosso crossing, camping auxiliary cohorts in the Old Square, near the Cerknik lake on the road

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23 In military jargon praetentura marked the space in the legionary camp between the port, Praetoria, and praetorium, that is, the building of a commander, hence the importance for a military border zone (BIGLIARDI 2007 p. 299).

24 ZACCARIA 2002, p. 78.

25 Rotna Ves, Carinthia in Austria.

26 Near Thörl - Maglerna, also in Carinthia.

27 Tarvisio, Italy.
Emona – Tergeste. On the Italian side the Forum Iulii, Gemona, Iulium Carnicum, Castra (Ajdovščina) and Invillino\textsuperscript{28} supposed to be included. In this system, Tarsatica was to play its role, as a municipium in the first century and the center of procurator province of Liburnia in the third quarter of the 2\textsuperscript{nd} century. The first governor (procurator centenarius) was Lucius Ar- torius Castus\textsuperscript{29}, with the authority to govern a province derived from the province of Dalmatia, and according to some, the province was annexed by Italy. At the end of the 2\textsuperscript{nd} and in early 3\textsuperscript{rd} century. Liburnia is again part of Dalmatia\textsuperscript{30}. Luttwak explains why praetentura was short-lived: "as soon as Roman army forced the enemy to the defense, or better yet, into the role of a client, the need to find any way to restore the previous situation\textsuperscript{31} emerged. Indeed, the Romans organized punitive raids in the north of the Danube\textsuperscript{32}.

When Marcus Aurelius died in 180, he was succeeded by his son Commodus (already a co-emperor in 177) and he, unlike his father, returned to Rome, leaving generals the task of consolidating the limes, and abando- ned plans to conquer Marcomanni and Quadi\textsuperscript{33}. After the murder of Commodus in 192 followed a time of instability in a series of emperors starting with Pertinax, killed by his own Praetorians, who installed Didius Julianus who had ruled for less than a year. The one who managed to grab the power was Septimius Severus\textsuperscript{34}, the commander of the mighty Danube legions, who marched on Rome, and after five years of warfare defeated Pescenius Niger and Clodius Albinus, thus creating a dynasty that would rule the empire until 235 A.D., the year of the death of Alexander Severus. Herodian mentiones the difficulties of Maximinus Thrax in crossing the Julian Alps in winter\textsuperscript{35}. Indeed, while Maximinus marched to Italy, a decree of the Senate ordered the inhabitants to evacuate the entire north-eastern side of Italy and

\textsuperscript{28} ZACCARIA 2002, p. 78.
\textsuperscript{29} Two inscriptions from Postrana (Pituntium/Peguntium) on a tombstone used for the St. Martin church fence (BLECIC 2001 p. 79).
\textsuperscript{30} VIŠNJIC 2009, p. 29.
\textsuperscript{31} LUTTWAK 2007 pp. 176-177.
\textsuperscript{32} RAJTAR 2002 pp. 99-120.
\textsuperscript{33} SALVATERRA 2004 p. 213.
\textsuperscript{34} ŠAŠEL 1971, p. 23.
\textsuperscript{35} ŠAŠEL 1971, p. 24.
that according to the principle of a scorched land all food resources should be destroyed. Even Emona followed the order\(^{36}\).

That same year the so-called “Military Anarchy”\(^{37}\), began the two separatist movements\(^{38}\), chronic pressure on the Rhine, Danube\(^{39}\) and the East\(^{40}\); this epoch is generally recognized as a time of profound crisis in the history of the Roman Empire.\(^{41}\) The sources in which Claustra is mentioned come after the time of the Military Anarchy and therefore we must resort to archaeological remains. Judging from the numismatic finds\(^{42}\) and other indicators of material culture, the building of Tarsatica Principia\(^{43}\) could be dated in the reign of the emperor Gallienus (253-268) or his closest heir. We know that it is during the reign of this emperor’s that the army reform occurred, which restructured itself according to the schemes of the Party warfare. The Roman army gradually adapted to new conditions by raising the number of extra squads and giving greater mobility to the legionary units. Legio-

\(^{36}\) ŠAŠEL 1971, p. 23.

\(^{37}\) LUTTWAK 2007 p 172. The period between the death of Septimus Severus (211) and the rise of Diocletian (284) saw 24 legitimate emperors and a large number of usurpers to the throne.

\(^{38}\) GERACI, MARCONE 2004, s. 231. Under Galienus the Kingdom of Palmyra and the Gaul Empire were separated, which paradoxically proved to be a good thing for the safety of the Empire. Aurelian (270-275) returned the two countries under the aegis of the Empire

\(^{39}\) LUTTWAK 2007. pp. 172-173. The ancient frontier peoples, and a number of separate tribes began to group into larger agglomerate during 2nd century. Now the Romans had had to deal with much larger federations of Francs and Alemanni that held much more power.


\(^{41}\) GERACI, MARCONE 2004 pp. 224-232.

\(^{42}\) BEKIC, RADIC-ŠTIVIĆ 2009, pp. 186-187. In the Principia Tarsatica 21 of the 66 coins are from the period 250-300, n.e. indicating an increased concentration compared to the prior times, and 108 coins in the Tarsatica of which 15 specimens revealed an increased presence of soldiers whose salaries must have been secured, and a cash register with coins (aerarium) by operation of law had to be in Principia.

\(^{43}\) Excavations performed by Croatian Conservation Institute from June to September 2007.
re of limes. The army was divided into squads at the border, *limitani* (soldiers-peasants) and the powerful moving forces in the regional background (*co-mitatenensis*)⁴⁴. From the same time date the northern fortifications at the northern Tarsatica and a monumental Gradina above Pasjak with coins of Claudius II, Gotha, Gallienus, and Quintiles, buried after the 260 A.D. In the nearby medieval hillfort near Klana the emperor Maxentius coin from 307 A.D, from the mint of Aquileia⁴⁵ was discovered. We have analogous evidence at Nauportus, Burgenland, and Turnovšče where forts and guard towers can be dated from 3rd to 4th century.⁴⁶ Castra and Ad Pirum date from 270 AD, which means that these fortifications were built for the invasion that affected Italy from the 259 to 271.⁴⁷ The murder of Gallienus (260) by his officers brought to the throne Claudius II Gotha (268-270 AD), the first one in a series of "Illyrian" emperors. Claudius had two important wins against Alemanni and Goths. He died of the plague, but his work was completed by Aurelian (270-275, after a short reign of Quintile⁴⁸, Claudius' brother) who has built mighty walls around Rome, repeatedly opposed the barbarians and defeated two breakaway states of Gaul and Palmyra. The murder of Aurelian was followed by the brief reign of Senator Tacitus (275/276), prefect of the praetorian Florian (276) and Probe (276-282), of the Illyrian origin. The latter was killed while preparing an expedition to Persia, which ended with the occupation of Ktezifonte by his praetorian prefect Carus (282-283). Carus was befallen by the same fate together with his sons Numerianus and Carin. Finally, the arrival of Diocletian⁵⁰ (284-305) closes a dark chapter of Roman history. Notable is the intensive construction activity throughout the 4th century. In Pannonia, Diocletian’s and Constantine’s reorganization of limes brought to the formation of multiple lines of defense in the interior areas as well. In the domain of Diocletian’s⁵⁰ provincial reorganization, new Noric is divided into two provinces (Ripense and Mediterrane), while Pannonia is divided into four provinces (Valeria,  

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⁴⁴ VIŠNJIC 2009, s. 29; LUTTWAK 2007, pp. 230-250.  
⁴⁵ VIŠNJIC 2009, s. 30; STARAC 2009, p. 286.  
⁴⁷ VANNESSE 2007, p. 320.  
⁴⁸ ŠAŠEL 1971, pp. 32-33.  
⁵⁰ GERACI, MARCONE 2004 p. 233-234
Prima, Secunda and Savia\textsuperscript{51}). Po Plain is given a central role in the management of the West in a shaft that is created with Milan, the imperial residence and headquarters of a provincial governor Aemilia et Liguria, with Aquileia, headquarters of Venetia et Histria. Aquileia became the center of other important statesmen among which was the prefect of the fleet Veneta, a senior magistrate in charge of finance and the military commander of the alpine sector\textsuperscript{52}. Despite all these sources, the information regarding Claustra are in contrast: circulation of coins has experienced decline in the Castra, and Ad Pirum\textsuperscript{53} and Tarsatica\textsuperscript{54}.

According to sources, in 312 AD, the role of barriers became marginal because Constantine marched through Gaul to Italy to confront and ultimately defeat Maksentius Licinius in 324.\textsuperscript{55} The main role Aquileia had in 340 when Constantine II died in the clash with Constans I\textsuperscript{56}. Barrier walls system plays a central role ten years later when Magnentius, after defeating Constans I (350)\textsuperscript{57}, set up headquarters in Aquileia in the form of a conflict with Constantine II\textsuperscript{58}. The only specific (but indirect) indication of the barriers are found in Ammianus Marcellinus, in his work Res Gestae we learn their precise denomination. In 368 general Sebastian (comes) served in Gaul, in 375 he was at Panonia and in 377 served the Emperor Valens as magister peditum in the Gothic War. In July 370 he came to Hadrianopolis:

Defenders \textit{of Hadrianopolis} were afraid that he \textit{Sebastian}, will be caught while traveling and that he will cross to the side of the enemy and that the city is in danger. Something similar happened to general Acacius, he was aptly captured by Magnencius’ soldier, and so the ”barriers” of the Julian Alps were free for passage. When they \textit{soldiers} after a long time recognized Sebastian, they gave him permission to enter the city, his troops to rest and provided them with food.

\textsuperscript{52} MARCONE 2002, p. 173.
\textsuperscript{53} VANNESSE 2007 p. 320.
\textsuperscript{54} The Principia has only 6 numismatic items from the period 300-350; a clear minority compared to the previous periods, 250-300.
\textsuperscript{55} GERACI, MARCONE 2004, pp. 236-238.
\textsuperscript{56} MARCONE 2002, p. 174.
\textsuperscript{57} GERACI, MARCONE 2004, p. 240.
\textsuperscript{58} MARCONE 2002, p. 174.
with food. The next day they went out of the city (from Šašel 1971, p. 23.)

Notice of Acacius in Sebastian’s story occurred between 351 and 352 during Magnentius’s usurpation. The specificity of the defense system was that it was not organized as a continuous line of defense, as it is the case, still visible, with the Hadrian Wall in Britain. Barriers had been devised to integrate with the natural obstacles in the form of hills and forests in order to block the passage to Italy, most importantly the road from Emona to Aquileia. Here, between Nauportus and Longaticuma three defensive lines were raised. Vanguard of Constantine II tried to break through the Alpine crossings at Ad Atrans (Trojane in Slovenia) but was rejected. Magnentius’ forces moved forward along the Sava river and won an important city of Siscia, in order to confront in Mursa in September 28 where Magnentius was defeated and forced to withdraw (the losses were enormous on both sides). The rebel then fled to Aquileia in the winter, leaving the army to guard the Alpine crossings while Costans was in no hurry, so he settled with his army in Sirmium. In autumn, 352 A.D, since Constans’ army appeared at the fort in Ad Pirum (Hrušica) Magnentius withdrew from Aquileia to Gaul, where he was defeated the following year at the Battle of Mons Seleucusa.

In 362 Julian was preparing to clash with the army of Constans II. He divided his forces into three parts and led 3000 horsemen in the course of the Danube, while the bulk of the army passed through Gaul from Italy and the Julian Alps, and he entered into Illyria and situated himself in Sirmi-

59 Veritis defensoribus ne captus ab hoste veniret et subornatus, atque contigeret aliquid in civitatis perniciem, quae per Acacium accidentur comitem, quae per fraudem a Magnentiacis militibus capto, claustra patefacta sunt Alpium Iuliaram. Agnitus tamen licet sero Sebastianus, et urbem introire permissus, cibo et quiete curatis pro opisia, quos ducebat, secuta luce impetu clandestino erupit etc.

60 Marcone 2002, p. 175.
61 Šašel 1971, p. 25.
63 Šašel 1971, p. 25.
64 Cameron, Garnsey 2003, pp. 20-21.
66 Cameron, Garnsey 2003, p. 23.
um where he learned about Constans’ death. The Empire avoided another civil war.\textsuperscript{67} During the fourth century there was no barbarian invasion of Italian soil, although the territory of the Danube limes was experiencing tension without precedent since the barbarians passed it countless times. These campaigns, in contrast to those of the 3\textsuperscript{rd} century, did not have only robbery as their goal, but also move the entire nation into the territory of the Empire because of the growing pressure from the Huns who at that time started with the expansion to the south and west. The result of this migration and bustle is the Battle of Hadrianopolis (Edirne, Turkey, Thrace) on 9 August, 378 in which the emperor Valens died along with two thirds of the Roman army.

Gratian did not feel capable to take care of the Empire so the East was awarded to general Theodosius\textsuperscript{68}. Two smaller forts, Lanišče and Martinj Hrib, were raised just at that time and served to support the most important fortresses in the region\textsuperscript{69}. An important document of that period, describing what the situation was like is a speech de excessu fratris Satyr from the 383, 379 or 375 at the occasion of the death of Ambrosius’ brother\textsuperscript{70}, while Quad and Sarmatians ravaged Pannonia\textsuperscript{71} and threatened Venetia. Ambrosius tells us that it is better to die like his brother than to stay alive and witness Italy threatened by the enemy and defended by “alpine fortresses and barricades of tree trunks that are shameful defense! How much pain he would have felt at the thought that such a thin line separates your kind from the enemies!”\textsuperscript{72}

Increase of crossbow fibula is associated with the above mentioned situation. There is a considerable increase of Pröttel type 3/4, subtype B. Three specimens from that time come from the fort Martinj Hrib and the other two from Ad Pirum and one from Tarsatica in the area of Principia. There is also a visible concentration of numismatic material in Castra\textsuperscript{73} as

\begin{footnotesize}
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\item \textsuperscript{67} Šašel 1971, p. 31.
\item \textsuperscript{68} Barbero 2009.
\item \textsuperscript{69} Vannesse 2007 p. 322.
\item \textsuperscript{70} Šašel 1971, pp. 26-27.
\item \textsuperscript{71} Šašel 1971, p. 31.
\item \textsuperscript{72} Šašel 1971, p. 27; Marcone 2002, p. 174.
\item \textsuperscript{73} Vannesse 2007 p. 323.
\end{itemize}
\end{footnotesize}
Claustra Alpium Iuliarum: a Research Plan

It is just the beginning of the presence of the military garrison in the city Iulia Concordia (now Concordia Sagittaria Furlan in the region) according to the local cemetery, the so-called “sepolcretto delle mili-zie” and forty military inscriptions present therein.

In 383 the usurper Magnus Maximus kills Gratian and in 386 (or 387) attacks Italy and expells Valentinian II along with his mother in Thes-saloniki under the auspices of Theodosius, the emperor of the Eastern Empire. Theodosius answered the insult, Magnus Maximus crossed Alpes Cottiae (Alps between France and Italy), made Aquileia his headquarters in order to use the Claustra system, but was defeated on the banks of the Sava river, near Siscia, and after that in Petovium (Ptuj). It is unclear why his army led the barriers that were systematically completed thanks to Andragacius, Maximus’ general (comes) in 388 (we do not know the sources from which this date was pulled by the historian Paul Orosius, because Tiranuius Rufin which the latter cites mentions no such date). But archeology shows us a different story: the progress of the army actually went east winning a fortress by fortress as the remains are showing us, as opposed to the ancient sources that have left us a triumphant version of the campaign. Forts Lanišče and Martinj Hrib were destroyed and Castra and Ad Pirum damaged. On the occasion of the death of Valentinian II (392), to whom the West was returned by Theodosius, Bishop Ambrose of Milan’s in his post-death speech mentioned the construction of the eastern Alpine barriers and several recent threats. Paul Orosius in his work Adversus histo-

74 BEKIC, RADIC-ŠTIVIC 2009.
77 ŠAŠEL 1971, p. 28.
80 ŠAŠEL 1971, p. 29.
81 Paullus Diaconus, Historia Romana (ŠAŠEL 1971, pp. 42-44).
82 ŠAŠEL 1971, p. 39.
83 ŠAŠEL 1971, pp. 35-37.
84 VANNESSE 2007, p. 324.
85 Sanctus Ambrosius (ŠAŠEL 1971, p. 28).
riae paganos wrote about these events. Nine years after Magnus Maximus (394) the battle of Frigidus occurred, between Theodosius and the usurper Flavius Eugenius (the last representative of the last pagan resistance), for whom fought general Arbogast of Frankish roots, Valentinian’s killer.

The Lamentation De Obitu Theodosii in honor of the Emperor Theodosius, Ambrose\(^{86}\) remembers winning the battle held on 4 and 5 September 394 at the barriers and the strange wind \textit{bura} that helped Theodosius’ Christian troops\(^{87}\). The battle took place around the Castra fort. Troops of the usurper Flavius Eugenius were arranged at Vrhpolje at the very mouth of the gorge of the same name, where they waited in an ambush for Theodosius’ army to caught them in a trap, which they succeeded on the first day with 10 000 Goths. Every attempt to retreat was impossible, because the passage at Hrušica was blocked by the crew loyal to Flavius Eugenius, the master of the fortress Ad Pirum. Nevertheless, on September 6 Theodosius\(^{88}\) won. Unlike their predecessors, Flavius Eugenius and Arbogast concentrated army on the Aquileia-Emona road so that they would not expend their forces. Only the two most important forts in the region were repaired for use and equipped with crew after 394. Yet they were abandoned after 400 as can attest Alaricus’ passage to Italy without having met with resistance\(^{89}\). At the end of the 4\(^{\text{th}}\) century, we can see the tendency that will become definitive in the fifth century: migration of rural population (which began during the crisis of Maximinus Thrax) towards fortified settlements on hills and villas that are beginning to encircle their walls\(^{90}\). Refuges on the mountain (Flichburgen or Fluchtburgen) sometimes coincide with the earlier prehistoric settlements in the vicinity of alternative pathways, are increasingly populated and become real villages\(^{91}\).

\(^{86}\) ŠAŠEL 1971, pp. 36-44.
\(^{87}\) Sanctus Ambrosius (ŠAŠEL 1971, p. 28).
\(^{88}\) VANNESSE 2007, p. 324.
\(^{89}\) VANNESSE 2007, p. 328.
\(^{90}\) Typically in the sixth century will be the phenomenon of transformation of late antique villa in the fortified churches, in the Italian language given the name “Pieve” (from the Latin “plebs”) as Invillino, Fagagna, S. Pietro in Carnia, Cormons... (MARCONE 2002, s. 174)
\(^{91}\) MARCONE 2002, p. 175.
Several years later, the forts on the Danube limes, between Noric and Pannonia, Vindobona (Vienna) and Carnuntum (between Vienna and Bratislava) are in greater and greater danger due to barbarian attacks.

Ambrose in those same years talks states [...] we heard that the border throughout Valeria in Pannonia is terrified with barbarian speech and attacks.

In November-December 401 Alaric passes through the Julian Alps barrier without encountering resistance and enters Italy, where he had to rely on Stilhon, the general who held the fate of the Western Empire. In the autumn-winter of 402/403, after two unresolved battle (at Pollentia and Verona), the Goths retreated from Italy through the Julian Alps in Dacia and Macedonia, where they remained for over three years. In 405/406 at the Battle of Fiesole Stilhon stops Radagaiza and his Goths who had also descended into Italy through the Julian Alps. Between 405 and 408 the Germans managed to break through the border on the Rhine (which froze due to harsh winter) and Danube four times in a row, while Constantine III usurper who had arrived from Britain was crowned in Arles. In 408 Alaric’s Goths were launched from Epirus (where they were situated in agreement with Stilicho) towards Noricum across the Alps.

The illustration shows a fortified town in the foothills of the Alps, probably Aquileia (possibly the seat of comes and the geo-strategic center of the entire defense system, including Forum Iulii and Iulium Carnicum), and behind it the walls placed between the Alpine passes that can be recognized as Claustra Alpium Iuliarum.

92 Amian Marcelinus at the end of the 4th c. speaks of Carnuntum as desertum quidem nunc et squalens (xxx, 5, 2 MARCONE 2002, p. 176)
94 Sanctus Ambrosius (ŠAŠEL 1971, p. 28); Tirranius Rufinus (ŠAŠEL 1971, p. 33).
97 MARCONE 2002, p. 177
The defense system with those characteristics implies a huge effort in military and territorial reorganization. In addition to restructuring the forts at the Julian Alps passes such as Castra and Ad Pirum, it is also visible in the setting up of new defense and observation points where the main communication lines for entry into Italy ran, as in Karnia, in northern Friuli (German Karntien) at locations of Moggio (slovenian Možnica), Invillino and Sutrio, on the banks of Tagliamento (slov. Tilment): Artegna (Ratenja), Gemona (Humin), Osoppo (Osovk) and Ragogna. Despite that fact, the system has not served the purpose as the Goths, Huns and the Longobards at the end, descended into Italy from the Pannonian Basin without encountering greater resistance.

*Notitia Dignitatum* is a remarkable ancient source which has survived until today. It lists all the military and civilian officers of the Late Empire divided into East and West are listed. The document was compiled by one of the most important state bureaucrats, *primicerus notariorum* who had the task of drafting the letter of appointment to the function. It has been updated several times due to the changes in the bureaucratic and military structures of the Empire. It shows the situation until 395 AD for the East gives an insight, date of the death of Emperor Theodosius, while the part considering the West is meticulously updated up to 408 and intermittently up to 420. Tractus was under the control of the military officer *comes miliaris Italia*, subordinate to the supreme commander the *magister militum praesentalis*. Comes apportioned the entire defense alpine zone, called limes, in sections, including the Julian Alps. This is reflected in the names of military

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98 For possible locations of Castra and Ad Pirum see KUSETIĆ 2008, pp. 36-37.
100 HEATHER 2008 p. 303.
detachments which were available to comes: *legiones Iulie alpinae I, II, III* [and Alpine (*pseudocomitatensis in Italia*) *II Julia Alpina (pseudocomitatensis in Illyirico), III Julia Alpina (Legio comitatensis)*]101.

The crucial events leading to the definitive abandonment of the barriers can be placed between 401 and 408 A.D. Judging by the archaeological ruins of Tarsatica Principia102, and also the numismatic documentation which does not exceed the end of the 4th century and the beginning of the 5th century103. Likewise, the villages on the route Emona – Hrušica – Castro (Ajdovščina) were abandoned in the early 5th century104. However, the strategic military importance of the whole area has not decreased105: in conjunction with the few archaeological traces we know about the notice by Prosper of Aquitaine on the incursion of Attila in Italy 452 AD106 and Paul the Deacon in his Historia Longobardorum in 663 when the king Grimuald called Avars (the Slavs) to attack the Duke of Friuli Lupo who had rebelled107. Anonymous from Ravenna in his Cosmography reminds us of the ancient names of the region108. In the absence of maintenance, tracts of the wall remained at the mercy of natural agents for centuries and served as a free building materials for residents of the nearby settlements. They were also used as a boundary between properties109. Some parts of the barriers were still important in the last century: in the first post-war period110, from the diplomatic point of view of the Versailles agreements under the Paris peace talks (Fig. 9) and an important role especially during the Second World War111.

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101 ŠAŠEL 1971, p. 35.
102 BEKIČ, RADIĆ-ŠTIVIĆ 2009, p. 223.
103 A layer of fire with fragments of *tegulae* and *anfora* on the floor of small rooms indicates that the end was violent; VIŠNJIĆ 2009, pp 31-32.
105 KUSETIĆ 2008 pp. 51-52.
106 ŠAŠEL 1971, p. 41.
107 ŠAŠEL 1971, p. 43.
109 For example the Frankopan family from the thirteenth century as the boundary between Dolenjska and Notranjska, KUSETIĆ 2008, p. 51.
110 Vallo Giulio for the Kingdom of Italy and the Rupnik Line for the Kingdom of SCS.
111 BITELLI 1999.
Figure 9. Vallo Ginlio. The matching of the Italian defense line between the two wars with Claustra parts in Rijeka, Grobnik and Klana is evident (from the State Archives of Trieste).

History of research

The knowledge about the fortification remains was always present within of the local population. The evidence for that are the toponyms Ajdovski zid = the wall of pagans, Šance, Pri Konfinu, Prezid, Cvinger, Turnovšče, Straža, Mirje, Pod gradarjem, Klavža, etc. The first to mention the walls in historiography was a historian, a lawyer and a Venetian doge Andrea Dandolo who in the 14th century wrote about the invasions of Avars in the 6th century, and identified the boundaries of eastern Istria with the long walls (muri longi).113

The Golden Bull of King Bela IV from 1260 entitles the Frankopans to ownership of properties as a sign of gratitude in the war against the Mongols. In reality the document was a forgery from the ‘30s of the 15th century.114

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112 Šašel 1971, s. 50.
114 Faber believes that the copy was made instead of a lost document that showed the existing situation in which Frankopans from 1225 carried the title of duke Vinodol and therefore the walls served as boundaries of the proper-
Claustra Alpium Iuliarum: a Research Plan

The first to describe the topography of the southern sector of the barrier is a patrician of Rijeka, Claudius de Marburg\textsuperscript{118} in the years 1660-62, and J. W. Valvasor in 1689 with the famous graphics of Rijeka, in which the limes described as “muri rudera antiquissimi” is visible, but he did not realise that it was a complete defense system.\textsuperscript{119}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure10.png}
\caption{The limes as seen 40 years ago (BEKI\v{C}, RADI\v{C}-\v{S}TIVI\v{C} 2009).}
\end{figure}

ty, before 13c. (\v{S}A\v{S}EL 1971, p. 49). Malnar claimed the opposite, that in the Vinodol Code of 1288, in which the nine communes from Vinodol are mentioned, there is no mention of Gorski Kotar or Girona (Gerovo) whose name we know 260 years before the Code, which is 20 years more recent than the Golden Bull. If Gerona is not present in the law, that means that the document was a forgery (MALNAR 2007, p 21).

\textsuperscript{115} \v{S}A\v{S}EL 1971, pp. 46-47.
\textsuperscript{116} \v{S}A\v{S}EL 1971, p. 48. “\textit{Meta et aqua sequitur libera, que aqua ex monte nostro Grobnicensi et confrinio scaturit, murus sopra inchoatur in Jilievicheh, qui dicitur Prezum, murus in piscina ad Pratutische, ex illa parte Terstenik, locus autem Terstenik manet noster et integer}”.
\textsuperscript{117} \v{S}A\v{S}EL 1971, p. 50.
\textsuperscript{119} \v{S}A\v{S}EL 1971, p.50; KUSETIC 2008, p. 14.
During the Great War, Walter Schmid had been allowed by the Austro-Hungarian army to investigate, make a systematical landscape survey and excavate the entire area from Ajdovščina to Rijeka. Although he accomplished the task persistently, the data he gathered was not published and he died in 1950. We only have a few articles from newspapers and two general reports (1923-1924, with the K. Pick in 1922-1924). Therefore, his unpublished work remained unused as well as that of general Italo Garibaldi of the Delimitation Commission after World War II with the task of defining the border between the Kingdom of Italy and the Kingdom of SCS. Garibaldi carried out the landscape survey from Ajdovščina to Rijeka (Figure 8) and seems to have excavated, including the one in Jelenje, but the results of his research were not published (except for a brief summary in 1921) and can be found in the archives as revealed by Sticotti (1934) and Degrassi (1954).

Figure 11. An ideal reconstruction of Tarsatica Principia in Rijeka, research conducted in 2007 (Bekić, Radić-Štivic 2009).

Development project

After collecting all the existing material, it is necessary to review the results of the excavations so far and position those activities onto the photos that we have got earlier via photogrammetry. On that basis we choose the territory to be recorded with LIDAR. It should be noted that the

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Clastra Alpium Iuliarum: a Research Plan

Clastra area was affected by forest growth owing to the reduction in farming and livestock production (Fig. 10). In addition, only a small part of it is located in the urban areas, and the rest is in the wild and attains considerable height. Thanks to LIDAR we can attain the bare area of the forest where we can see the archaeological remains (forts and towers floor plans, walls stretch), hydrology and geology of the 3D model on the basis of which we can choose locations for the direct landscape survey.

![Figure 12. An ideal reconstruction of a tower at the Clastra outline (reconstruction of Matej Župančič).](image)

The surveyed locations should be introduced in the topographic maps (Figure 13, 14, 15, 16), then research with georadar (GPR) could be carried out, and in the case of positive results we can carry out the archaeological soundings. Confirmed sites are recorded in Archaeological Surveying (if it exist). All the data collected systematically goes into a GIS (Geographic Information System), which enables us to draw information that we are interested in at the given moment and have a complete picture of the area. Finally we can start with a systematic archaeological survey in the form of stratigra-

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122 From sea level in Rijeka to mountain tops in Primorsko-goranska County and western Slovenia.
123 RENFREW, BAHN 1995, pp. 58-64.
124 RENFREW, BAHN 1995, pp. 76-82.
125 http://arkas.zrc-sazu.si/index.php?kaj=home.main
126 BIANCHINI 2008 (http://www.rilievoarcheologico.it/manuale_rilievo8_00006.htm).
graphic excavations. In this way we can understand the developments in late antiquity in the Julian Alps, which we have not been recorded in other sources.

After the conducted archaeological research, we are far from knowing the entire outline of the walls (Fig. 16, 17, 18), the object should be protected, conserved, and its virtual reconstruction should be made (fig. 11, 12). An optimal strategy of its review in scientific, cultural and tourism purposes ought to be developed. In the author’s opinion, *Claustra Alpium Iuliarum* has a historical and cultural significance of Hadrian’s Wall\(^\text{127}\), the Antonine Wall\(^\text{128}\) and the limes along the Rhine and Danube, and it should also be included under the protection of UNESCO.\(^\text{129}\)

\[\text{Figure 13. Rijeka – Tarsatica. Tracts of limes at Kalvarija and Sv. Katarina (M. ZACCARIA & V. FLEGO).}\]

\(^{127}\) [http://www.hadrians-wall.org/](http://www.hadrians-wall.org/)


\(^{129}\) [http://whc.unesco.org/pg.cfm?cid=31&id_site=430](http://whc.unesco.org/pg.cfm?cid=31&id_site=430)
Figure 14. Jelenje. Tract of limes at Jelenje (M. ZACCARIA & V. FLEGO).
Figure 15. Klana. Tract of limes at Klana, the spring of Rječina-Željezna vrata (M. ZACCARIA I V. FLÉGO).
Figure 16. Prezid. Tract of limes at Prezid (M. ZACCARIA & V. FLEGO).
Figure 17. Recently discovered remains at Nova Pota, Sodražica county (ZACCARIA 2011).

Figure 18. Location of a possible Roman fortress 300 m from Mlaka at Klana. (I was warned about this location by an amateur archaeologist Mr. Dražen Kranjec)
Figure 19. Photos sent to me by Mr Klanjec, a possible Roman fortress, judging by the floor plan on Google Earth. It needs landscape survey, but it would seem that the entire area is far from being explored and well recorded.

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